SANTA CRUZ BIOTECHNOLOGY, INC.

PEDF (I-15): sc-16956

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pigment epithelium-derived growth factor (PEDF, also known as EPC-1 (early population doubling level cDNA-1)) is a glycoprotein found naturally in the normal eye. PEDF has reported neuroprotective and differentiation properties and is secreted in abundance by retinal pigment epithelium cells. PEDF belongs to the serine protease inhibitor (serpin) superfamily and has been reported to inhibit angiogenesis and proliferation of several cell types. The "pooling" of PEDF within the interphotoreceptor matrix places this molecule in a prime physical location to affect the underlying neural retina. Addition-ally, PEDF induces neuronal differentiation and promotes survival of neurons of the central nervous system from degeneration caused by serum withdrawal or glutamate cytotoxicity.

CHROMOSOMAL LOCATION

Genetic locus: SERPINF1 (human) mapping to 17p13.1; Serpinf1 (mouse) mapping to 11 B5.

SOURCE

PEDF (I-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PEDF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16956 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PEDF (I-15) is recommended for detection of precursor and mature PEDF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PEDF (I-15) is also recommended for detection of precursor and mature PEDF in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PEDF siRNA (h): sc-40947, PEDF siRNA (m): sc-40948, PEDF shRNA Plasmid (h): sc-40947-SH, PEDF shRNA Plasmid (m): sc-40948-SH, PEDF shRNA (h) Lentiviral Particles: sc-40947-V and PEDF shRNA (m) Lentiviral Particles: sc-40948-V.

Molecular Weight of PEDF: 50 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or A549 cell lysate: sc-2413.

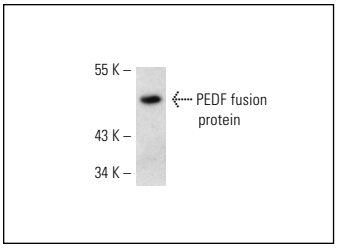
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

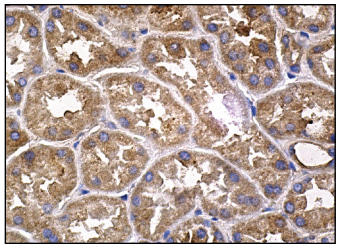
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



PEDF (I-15): sc-16956. Western blot analysis of human recombinant PEDF fusion protein.



PEDF (I-15): sc-16956. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Quan, G.M., et al. 2002-2003. Resistance of epiphyseal cartilage to invasion by osteosarcoma is likely to be due to expression of antiangiogenic factors. Pathobiology 70: 361-367.
2. Quan, G.M., et al. 2004. Localization of pigment epithelium-derived factor in growing mouse bone. Calcif. Tissue Int. 76: 146-153.
3. Zhang, L., et al. 2005. Down-regulation of PEDF expression by ribozyme transgene in endothelial and lung cancer cells and its impact on angiogenesis *in vitro*. Oncol. Rep. 14: 1615-1619.
4. Zhang, L., et al. 2006. Expression of pigment epithelial derived factor is reduced in non-small cell lung cancer and is linked to clinical outcome. Int. J. Mol. Med. 17: 937-944.
5. Chen, J., et al. 2009. The molecular impact of pigment epithelium-derived factor, PEDF, on lung cancer cells and the clinical significance. Int. J. Oncol. 35: 159-166.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.